

Refine Search

Search Results -

| Terms | Documents |
|--------------------------------|-----------|
| L13 and (reduc\$ with power\$) | 1 |

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

L20

Refine Search

Recall Text

Clear

Interrupt

Search History

DATE: Tuesday, March 21, 2006 [Printable Copy](#) [Create Case](#)

Set
Name Query
 side by
 side

Hit
Count Set
 Name
 result
 set

DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR

| | | | |
|------------|---|---|------------|
| <u>L20</u> | L13 and (reduc\$ with power\$) | 1 | <u>L20</u> |
| <u>L19</u> | L13 and speed\$ | 1 | <u>L19</u> |
| <u>L18</u> | L13 and (speed\$ same level\$) | 0 | <u>L18</u> |
| <u>L17</u> | L13 and (speed\$ with level\$) | 0 | <u>L17</u> |
| <u>L16</u> | L13 and (restart\$ or after\$) | 1 | <u>L16</u> |
| <u>L15</u> | L13 and (fuel with suppl\$) | 1 | <u>L15</u> |
| <u>L14</u> | L13 and unauthor\$ | 1 | <u>L14</u> |
| <u>L13</u> | 6072248.pn. | 1 | <u>L13</u> |
| <u>L12</u> | L2 and l1 | 1 | <u>L12</u> |
| <u>L11</u> | L10 and l8 | 0 | <u>L11</u> |
| <u>L10</u> | 5937823.pn.or 6549130.pn.or 5977654.pn. | 3 | <u>L10</u> |

*DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES;
 OP=OR*

| | | | |
|--|--|-----|-----------|
| <u>L9</u> | l1 and L8 | 0 | <u>L9</u> |
| <u>L8</u> | l2 and l5 and L7 | 2 | <u>L8</u> |
| <u>L7</u> | l3 or l4 | 357 | <u>L7</u> |
| <u>L6</u> | l1 and l2 and l5 | 0 | <u>L6</u> |
| <u>L5</u> | 701/93.ccls. | 778 | <u>L5</u> |
| <u>L4</u> | L2 and @pd<=20040123 | 291 | <u>L4</u> |
| <u>L3</u> | L2 and @ad<=20040123 | 321 | <u>L3</u> |
| <u>L2</u> | (shutdown\$ or "shut-down") and (speed\$ with (decreas\$ or reduc\$)) and (stop\$ with (vehicle or car\$ or automobile\$)) | 399 | <u>L2</u> |
| <i>DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR</i> | | | |
| <u>L1</u> | 6549130.pn. or 5937823.pn. or 6504472.pn. or 6549130.pn. or 6249215.pn. or 6313140.pn. or 5925940.pn. or 5937823.pn. or 6072248.pn. or 5638044.pn. or 5819869.pn. or 5513244.pn. or 5563453.pn. or 4878050.pn. | 12 | <u>L1</u> |

END OF SEARCH HISTORY

[First Hit](#) [Fwd Refs](#)[Previous Doc](#)[Next Doc](#)[Go to Doc#](#)**End of Result Set**

Generate Collection

Print

L20: Entry 1 of 1

File: USPT

Jun 6, 2000

DOCUMENT-IDENTIFIER: US 6072248 A

TITLE: Method of and system for externally and remotely disabling stolen or unauthorized operated vehicles by pursuing police and the like

CLAIMS:

5. The method as claimed in claim 1 wherein the vehicle is equipped with a fuel pump system controlled by a carburetor and electrically powered, and said initiating step is effected, upon receipt of the transmitted signal, by intermittently supplying power to stage successive reductions in the electrical powering of the fuel pump to ultimate shut-down.

15. The system of claim 9 wherein the vehicle is equipped with an electrically powered fuel pump system controlled by a carburetor, and, upon receipt of the receiver of the transmitted signal and in response thereto, said control circuit effects the intermittent supplying of power to the fuel pump system to stage successive reductions in the electrical powering of the fuel pump down to ultimate shut-down.

[Previous Doc](#)[Next Doc](#)[Go to Doc#](#)

[First Hit](#) [Fwd Refs](#)[Previous Doc](#)[Next Doc](#)[Go to Doc#](#)

End of Result Set



Generate Collection

Print

L12: Entry 1 of 1

File: USPT

Jun 6, 2000

DOCUMENT-IDENTIFIER: US 6072248 A

TITLE: Method of and system for externally and remotely disabling stolen or unauthorized operated vehicles by pursuing police and the like

Abstract Text (1):

A method of and system for enabling pursuing police cruisers or the like to remotely and safely stop the engine of an appropriately equipped stolen or improperly operated vehicle, wherein the cruiser transmits a control signal to a receiver pre-provided in the vehicle, to initiate, preferably through modified engine control modules, a forced and over-riding multiple-stage reduction in fuel supplied to the engine, first to slow down the vehicle below idling speed, and then to stall the engine by total fuel shut off.

Brief Summary Text (1):

The present invention relates to anti-theft techniques and systems for stopping the unauthorized use of automotive vehicles and other fuel-engine-driven apparatus and the like, being more particularly, though not exclusively, concerned with the very special problems, conditions and circumstances of enabling pursuing police, remotely and safely, automatically to disable the further operation of such vehicles.

Brief Summary Text (4):

The frustration with the consequences of dangerous high speed chases, many of which result in serious injuries, and often to innocent bystanders, has even engendered the use of a system commonly known as "stop sticks" that requires the police to get in front of the chased vehicle and place a line of spikes in its path. Aside from the clumsiness of this tactic and the obvious hazard to the police and public from the vehicle with flat tires hurling at them at a high rate of speed, new technology in tires has produced a line of tires that can run some fifty miles without air in them.

Brief Summary Text (6):

Even once the police have stopped a vehicle, however, they are still subject to the serious risk that the operator can speed off again, often running them down or even shooting the officer in so escaping.

Brief Summary Text (11):

In accordance with the present invention, these problems are admirably solved in vehicles equipped with special anti-theft receivers and control circuits that enable pursuing police cars that have been provided with a special radiation transmitter, for remotely directing signals from the pursuing police car towards the fleeing vehicle, effectively, safely and automatically to disable the engine of that vehicle in stages of speed reduction or slow-down. This is a vital safety feature, allowing the police to select a safe spot, away from the general public, for fully stopping the vehicle, and for avoiding the consequences of an abrupt stop.

Brief Summary Text (18):

In summary, however, from one of its important viewpoints, the invention embraces a method of remotely and safely automatically stopping a fuel-driven engine of a vehicle equipped with a receiver responsive to an externally transmitted signal, that comprises, transmitting the signal to the vehicle-to-be-stopped; upon receipt of the signal by the receiver at the vehicle, and in response thereto, initiating in the vehicle a forced multiple-stage successive reduction in fuel supply to the engine; first, to a stage of slow down of the vehicle, and then to stall the engine completely in response to a final stage of total fuel shut-off.

Brief Summary Text (19):

The invention is designed to allow law enforcement officers remotely to slow down an equipped fleeing vehicle with safety, and then to stop the vehicle that they are chasing. This is accomplished by the transmittal of a signal from the pursuing police vehicle that first slows and then stops the engine of a vehicle equipped with the appropriate receiver and apparatus of the invention. This enables the law enforcement officer safely to stop a high speed pursuit. The system consists of two main components. First, a receiver system mounted in a vehicle electric system that is to affect the fuel system; and secondly, a signal transmitter controlled by the law enforcement officer.

Detailed Description Text (3):

controls the fuel pump 4. In accordance with the present invention in one preferred mode, the reception of the police transmission T in the receiver 2 causes a signal to be applied at 5 to the fuel control section of the ECM 3, more fully later discussed in connection with FIG. 3, to command the fuel system to lower the engine speed in successive steps at spaced intervals of time. First, preferably to a speed near or preferably below idle condition, providing a first stage of forced vehicle slow-down, involuntary to the vehicle operator; and then, a second stage of total shut-down of the fuel pump 4 (or, if desired, further intermediate slower engine speed step or stages in between).

Detailed Description Text (5):

For such OEM or factory installed versions of the invention, the receiver and control circuit modifications are embodied in a vehicle engine control module ECM at the time of original equipment manufacture. The system, when targeted by law enforcement, will command the fuel management system to lower or otherwise affect the vehicle fuel flow so as to slow the vehicle engine speed to a below idle condition. This results in a lower than normal idle speed regardless of throttle position, but still allows the vehicle operator to steer and stop the vehicle with the assistance of the power steering and brakes. The lower than normal idle speed stage only lasts a short predetermined amount of time, after which the fuel pump is shut down completely, stalling the engine. While the system may later be reset, until so reset, the vehicle will not be able to be started.

Detailed Description Text (9):

In the case of a vehicle that has an older mechanical fuel pump system, such as one equipped with a carburetor instead of the more contemporary fuel injection type systems, the "PURSUIT STOPPER" system of the invention may be installed into the coil circuit, with power shut-off to the coil circuit stalling the engine. The two-stage relay in this application would cause the coil to lose power intermittently until total shut down occurs--the same characteristics as above described.

Detailed Description Text (10):

A successfully operated version of the system of FIG. 2C is shown in the diagram of FIG. 5, using a transmitter 1 of the Linear Corp. Model 22-D single channel type, operating at a frequency of 303.875 MHz, a Linear Corp. D676-F type receiver 2 installed in the vehicle, a pulsing two-stage relay 2' of the type positive switching type paralleled with a Digit-Timer manufactured by SSAC Inc., and the shown connections to the fuse box 8 and fuel pump electric supply. The initial pulsing relay slow-down stage to below idling occurred in about 0.02 seconds, and

the predetermined time period thereafter for the total shut-down stage was about 15 seconds.

Detailed Description Text (11):

Thus the invention, in all its forms, provides a simplified, but highly effective, system with minimal special equipment that enables pursuing police cars remotely to control and ultimately safely shut off the fuel in a stolen vehicle or other errant vehicle--assuming the vehicle is equipped with an appropriate engine management system modification or appropriate ancillary circuits tailored for this present function (as pre-agreed by the vehicle owner to enable police recovery of the vehicle, if stolen, or as mandated by a legislature). The invention is particularly tailored for use by police car pursuit and to be initiated and remotely controlled by the police with maximum effectiveness and control in stopping the fleeing vehicle, and with safety to the surrounding public and property, to the police, and to the vehicle, as before explained.

Detailed Description Text (14):

Given the fact that the "PURSUIT STOPPER" of the invention is passive and silent, it will serve a multitude of purposes. Because it is passive, once installed into a vehicle, moreover, the vehicle owners do not have to engage the system, nor can they. If the operator of the vehicle is in some way physically impaired (heart attack, drug or alcohol intoxication), the police can safely slow down and then stop the vehicle. In the case of a vehicle theft, the police usually do not know what to expect from a car thief (bank robber, kidnapper, suicidal maniac, etc.).

Detailed Description Text (16):

The remotely controlled staged engine shut-down of the invention, may, as an example, also be usefully applied to engines driving other types of systems, such as boats or the like; and, indeed, to the shut-down of fuel-driven engines of all kinds and in many uses or locations. Further modifications including, for example, other types of well-known multiple-stage or stepped control or valving than the particular illustrative type of relays herein described may also be used, and will be evident to those skilled in this art; and such are accordingly deemed to be embraced within the spirit and scope of the invention as defined in the appended claims.

CLAIMS:

1. A method of remotely and safely automatically stopping a fuel-driven engine of a vehicle equipped with a receiver responsive to an externally transmitted signal, that comprises, transmitting the signal to the vehicle-to-be-stopped; upon receipt of the signal by the receiver at the vehicle, and in response thereto, initiating in the vehicle a forced multiple-stage successive reduction in fuel supply to the engine; first, to a stage of slow down of the vehicle below normal engine idling speed, and then to stall the engine completely in response to a final stage of total fuel shut-off.
3. The method as claimed in claim 1 wherein the vehicle is equipped with fuel injection and an engine management computer or center having a fuel injection control component, and said initiating step is effected, upon receipt of the transmitted signal, by controlling the fuel control component, first to reduce the fuel available to the engine below the engine idling speed, and then subsequently to shut off all fuel, stalling the engine.
5. The method as claimed in claim 1 wherein the vehicle is equipped with a fuel pump system controlled by a carburetor and electrically powered, and said initiating step is effected, upon receipt of the transmitted signal, by intermittently supplying power to stage successive reductions in the electrical powering of the fuel pump to ultimate shut-down.

8. The method claimed in claim 7 wherein after shut-down, the relay is re-set to enable normal fuel supply engine operation.

9. A system for remotely and safely stopping a vehicle fuel-driven engine controlled by a fuel supply pump and wherein the vehicle is also equipped with a receiver responsive to an externally transmitted signal, the system having, in combination with the receiver at the vehicle, a control circuit responsive to the receipt of the transmitted signal in the vehicle receiver connected thereupon to control the fuel pump to initiate a forced multiple-stage successive reduction in fuel supplied by the fuel pump to the engine; first, to the stage of slow down of the vehicle below normal engine idling speed, and later to the stage of shut-off of all fuel to the engine to stall the engine.

12. The system of claim 9 wherein the vehicle is equipped with fuel injection and an engine management computer or center having a fuel injection control component, and a circuit responsive to the receipt of the transmitted signal in the vehicle receiver for thereupon controlling the fuel control component, first to reduce the fuel available to the engine below the engine idling speed, and then subsequently to shut off all fuel, stalling the engine.

15. The system of claim 9 wherein the vehicle is equipped with an electrically powered fuel pump system controlled by a carburetor, and, upon receipt of the receiver of the transmitted signal and in response thereto, said control circuit effects the intermittent supplying of power to the fuel pump system to stage successive reductions in the electrical powering of the fuel pump down to ultimate shut-down.

18. The method of claim 17 wherein the first stage involves reducing the fuel available to the engine to below engine idling speed, and then subsequently to the complete fuel shut-down stage.

20. The method of claim 17, wherein, after shut-down, the fuel supply is reset and restored to enable normal engine operation.

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)

[First Hit](#) [Fwd Refs](#)[Previous Doc](#)[Next Doc](#)[Go to Doc#](#)

End of Result Set



Generate Collection

Print

L16: Entry 1 of 1

File: USPT

Jun 6, 2000

DOCUMENT-IDENTIFIER: US 6072248 A

TITLE: Method of and system for externally and remotely disabling stolen or unauthorized operated vehicles by pursuing police and the like

Brief Summary Text (8):

It has previously been proposed, as, for example, in U.S. Pat. No. 5,453,730, remotely to control the unauthorized use of a vehicle by transmitting a radiation signal to a receiver disposed in that vehicle in order to initiate a warning to the unauthorized driver, as by illuminating the brake and hazard lights, that, within a short time, the fuel to the fuel pump will be automatically shut-off, as by the operation of a triggered centrifugal switch also responsive to the received signal and activated after the short time delay period.

Brief Summary Text (14):

A further object is to provide such a novel system that can be adapted for use with both older engines using carburetors, more modern engines employing fuel injection, and, more recently, such engines operating with electronic computerized engine control and management modules (hereinafter sometimes abbreviated "ECM"), with applicability either as accessory after-market equipment, or as original manufactured equipment (OEM).

Detailed Description Text (4):

More specifically, the "fuel system control" section of the engine control module ECM 3 of FIG. 1 (a typical General Motors design), is shown in FIG. 3 as comprising a fuel pump relay, so-labeled at the bottom of the drawing, which controls the fuel pump in well-known conventional fashion. In accordance with the invention, the signal from the receiver 2 is applied at 5 to cause the fuel pump relay to chatter or pulse intermittently, causing a lower than normal fuel pressure to be instituted and lowering the vehicle speed to below idle engine speed--this constituting the first stage or forced slow-down step before discussed. After a predetermined time, the relay may automatically close (or a further transmission from the police transmitter under the control of the police may trigger the final closing), completely stalling and shutting down the engine--the second stage or step previously discussed. In effect, this achieves a staged valving off of the fuel supply.

Detailed Description Text (5):

For such OEM or factory installed versions of the invention, the receiver and control circuit modifications are embodied in a vehicle engine control module ECM at the time of original equipment manufacture. The system, when targeted by law enforcement, will command the fuel management system to lower or otherwise affect the vehicle fuel flow so as to slow the vehicle engine speed to a below idle condition. This results in a lower than normal idle speed regardless of throttle position, but still allows the vehicle operator to steer and stop the vehicle with the assistance of the power steering and brakes. The lower than normal idle speed stage only lasts a short predetermined amount of time, after which the fuel pump is shut down completely, stalling the engine. While the system may later be reset, until so reset, the vehicle will not be able to be started.

Detailed Description Text (8):

For the before-mentioned versions for the after market or retrofitting of existing vehicles, several forms are useful depending upon the type of vehicle and the application. The basic components, however, are a receiver controlling a two stage relay 2', FIG. 2C, and various types of connections. The receiver will be capable of receiving a signal identical to that of the OEM installations, FIG. 2B,. The two stage relay will have the same characteristics; first to pulse and then to close, effecting lower than normal idle speed and then complete fuel shut down from the fuel line 9 after a predetermined amount of time. The installation connections will be based on the specific type of vehicle, with a common connector at the fuse receptacle 8. The connector may also have a locking mechanism to prevent removal, once installed, and a block-out plate (not shown) that will eliminate the possibility of overriding the system by a thief.

Detailed Description Text (13):

In the preferred (OEM) version, the computer management system fuel pump control circuit (and/or idler control), as modified, is over-ridden upon the receipt in the vehicle of the police-cruiser radio, laser or other signal transmitted directionally from the cruiser right at the vehicle to avoid the possibility of receipt by other vehicles in the vicinity that may also be equipped with this receiving system. The vehicle receiver for this signal may be mounted in line-of-sight from the rear, front and sides of the vehicle, as on the top of the dashboard, hidden or disguised therein, and appropriately connected with or in the management processor unit as previously detailed. As before discussed, where there is no management system, as in older cars, a two (or more) stage valve shutoff may be installed to control the fuel line, also activatable by the received police transmission. As earlier stated, after vehicle recovery, a subsequent transmission from the police transmitter, such as a coded number of impulses, may reset the management system or multi-stage valve for resumption of operation.

CLAIMS:

8. The method claimed in claim 7 wherein after shut-down, the relay is re-set to enable normal fuel supply engine operation.

11. The system of claim 10 wherein said staged valving is effected with a fuel pump relay provided with a circuit responsive to the received signal for enabling the initial intermittent pulsing of the relay, and then, after a predetermined time, final activation to shut-off the pump.

20. The method of claim 17, wherein, after shut-down, the fuel supply is reset and restored to enable normal engine operation.

[Previous Doc](#)[Next Doc](#)[Go to Doc#](#)

[First Hit](#) [Fwd Refs](#)[Previous Doc](#)[Next Doc](#)[Go to Doc#](#)

End of Result Set



Generate Collection

Print

L14: Entry 1 of 1

File: USPT

Jun 6, 2000

DOCUMENT-IDENTIFIER: US 6072248 A

TITLE: Method of and system for externally and remotely disabling stolen or unauthorized operated vehicles by pursuing police and the likeBrief Summary Text (1):

The present invention relates to anti-theft techniques and systems for stopping the unauthorized use of automotive vehicles and other fuel-engine-driven apparatus and the like, being more particularly, though not exclusively, concerned with the very special problems, conditions and circumstances of enabling pursuing police, remotely and safely, automatically to disable the further operation of such vehicles.

Brief Summary Text (7):

The thrust of the approach underlying the present invention quite differently resides in the use of radiation signal transmissions (radio, light, infrared, etc.) externally to control the further unauthorized operation of appropriately receiver-equipped vehicles by remotely automatically disabling the operation of the vehicle engines in response to the reception of such transmissions.

Brief Summary Text (8):

It has previously been proposed, as, for example, in U.S. Pat. No. 5,453,730, remotely to control the unauthorized use of a vehicle by transmitting a radiation signal to a receiver disposed in that vehicle in order to initiate a warning to the unauthorized driver, as by illuminating the brake and hazard lights, that, within a short time, the fuel to the fuel pump will be automatically shut-off, as by the operation of a triggered centrifugal switch also responsive to the received signal and activated after the short time delay period.

Brief Summary Text (10):

While useful in varying degrees for the vehicle owner to try to protect the unauthorized operation of the owner's vehicle, these and other prior suggestions, however, fall far short of providing effective systems for the specific problems and applications underlying the present invention; namely, for use by pursuing or tracking police vehicles--and, in that connection, not only enabling fool-proof remote disabling of the unauthorized operating vehicle, but to do so in controlled stages, and thus with controlled safety to other vehicles in the area, to property and to pedestrians, to the pursuing police officers and their vehicles, and to the unauthorized vehicle operator himself or herself.

Brief Summary Text (13):

A primary object of the invention, accordingly, is to provide a new and improved method of and system for externally and remotely automatically disabling stolen or unauthorized operated vehicles or the like by pursuing police or other parties, that, unlike prior art signal-controlled engine disabling systems as in the above-cited patents, particularly address the special and unique circumstances of stolen vehicle pursuit by police cars and the like, and enable such remote automatic disablement effectively and safely in staged slow-down.

[First Hit](#) [Fwd Refs](#)

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)



Generate Collection

Print

L1: Entry 4 of 12

File: USPT

Jun 19, 2001

US-PAT-NO: 6249215

DOCUMENT-IDENTIFIER: US 6249215 B1

TITLE: Method for shutting down a vehicle

DATE-ISSUED: June 19, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|--------------|-------|----------|---------|
| Dilz; Bernhardt | Sindelfingen | | | DE |
| Kollbach; Dietbert | Esslingen | | | DE |
| Robitschko; Peter | Sindelfingen | | | DE |

ASSIGNEE-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|--------------------|-----------|-------|----------|---------|-----------|
| DaimlerChrysler AG | Stuttgart | | | DE | 03 |

APPL-NO: 09/099102 [PALM]

DATE FILED: June 18, 1998

FOREIGN-APPL-PRIORITY-DATA:

| COUNTRY | APPL-NO | APPL-DATE |
|---------|------------|---------------|
| DE | 197 25 669 | June 18, 1997 |

INT-CL-ISSUED: [07] B60 R 25/10

US-CL-ISSUED: 340/426; 340/425.5, 340/988, 340/989, 307/10.2, 180/287

US-CL-CURRENT: 340/426.12; 180/287, 307/10.2, 340/425.5, 340/426.19, 340/988, 340/989

FIELD-OF-CLASSIFICATION-SEARCH: 340/426, 340/425.5, 340/428, 340/429, 340/430, 340/989, 340/988, 340/990, 340/991, 340/992, 340/993, 307/10.2-10.6, 180/287

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

Clear

PAT-NO

ISSUE-DATE

PATENTEE-NAME

US-CL



3786422

January 1974

Lubkin

340/989



3893108

July 1975

McBride, Jr. et al.

340/426

OTHER PUBLICATIONS

Technical Committee 278, Road Transport and Traffic Telematics (RTTT), European Committee for Standardization.

ART-UNIT: 262

PRIMARY-EXAMINER: Tong; Nina

ATTY-AGENT-FIRM: Evenson, McKeown, Edwards & Lenahan, P.L.L.C.

ABSTRACT:

A process and an arrangement for shutting down a vehicle by means of a shut-down signal is the result of a shut-down request. During a vehicle-side analysis, a conclusion is drawn from a current vehicle operating condition and/or a current vehicle location according to defined criteria regarding a shut-down site which is safe with respect to traffic and/or a traffic-safe shut-down site is recognized, in which case the shut-down signal is not generated before the current vehicle operating condition represents a traffic-safe shut-down site and/or before the current vehicle location corresponds to a traffic-safe shut-down site.

12 Claims, 2 Drawing figures

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)

[First Hit](#) [Fwd Refs](#)

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)



Generate Collection

Print

L1: Entry 1 of 12

File: USPT

Apr 15, 2003

US-PAT-NO: 6549130

DOCUMENT-IDENTIFIER: US 6549130 B1

**** See image for Certificate of Correction ****

TITLE: Control apparatus and method for vehicles and/or for premises

DATE-ISSUED: April 15, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-----------------------|---------|-------|----------|---------|
| Joao; Raymond Anthony | Yonkers | NY | 10703 | |

APPL-NO: 09/277935 [PALM]

DATE FILED: March 29, 1999

PARENT-CASE:

RELATED APPLICATIONS This is a continuation application of U.S. patent application Ser. No. 08/683,828, filed Jul. 18, 1996, now U.S. Pat. No. 5,917,405, which is a continuation-in-part application of U.S. patent application Ser. No. 08/587,628, filed Jan. 17, 1996, abandoned, which is a continuation application of U.S. patent application Ser. No. 08/489,238, filed Jun. 12, 1995, now U.S. Pat. No. 5,513,244, which is a continuation application of U.S. patent application Ser. No. 08/073,755, filed Jun. 8, 1993, abandoned, and which U.S. patent application Ser. No. 08/683,828, filed Jul. 18, 1996, now U.S. Pat. No. 5,917,405, is also a continuation-in-part application of U.S. patent application Ser. No. 08/622,749, filed Mar. 27, 1996, abandoned.

INT-CL-ISSUED: [07] G08 B 1/08

US-CL-ISSUED: 340/539; 340/425.5, 340/428, 340/540, 307/10.2

US-CL-CURRENT: 307/10.2, 340/425.5, 340/428, 340/540

FIELD-OF-CLASSIFICATION-SEARCH: 340/425.5, 340/426, 340/428, 340/429, 340/430, 340/539, 340/825.32, 340/825.34, 340/825.36, 307/10.2, 307/10.3, 342/357.03, 342/357.07, 342/357.09, 342/457, 455/422, 701/1, 701/36, 701/49
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search All

Clear

PAT-NO

ISSUE-DATE

PATENTEE-NAME

US-CL



4050301

September 1977

Cushing

| | | | |
|--------------------------|----------------|----------------|----------------------------|
| <input type="checkbox"/> | | | |
| <input type="checkbox"/> | <u>5898392</u> | April 1999 | Bambini et al. |
| <input type="checkbox"/> | <u>5903226</u> | May 1999 | Suman et al. |
| <input type="checkbox"/> | <u>5917405</u> | June 1999 | Joao |
| <input type="checkbox"/> | <u>5917434</u> | June 1999 | Murphy |
| <input type="checkbox"/> | <u>5948026</u> | September 1999 | Beemer, II. et al. |
| <input type="checkbox"/> | <u>5949345</u> | September 1999 | Beckert et al. |
| <input type="checkbox"/> | <u>5959577</u> | September 1999 | Fan et al. |
| <input type="checkbox"/> | <u>5969953</u> | October 1999 | Purdom et al. |
| <input type="checkbox"/> | <u>5973619</u> | October 1999 | Paredes |
| <input type="checkbox"/> | <u>5974349</u> | October 1999 | Levine |
| <input type="checkbox"/> | <u>5982048</u> | November 1999 | Fendt et al. |
| <input type="checkbox"/> | <u>5983161</u> | November 1999 | Lemelson et al. |
| <input type="checkbox"/> | <u>5988645</u> | November 1999 | Downing |
| <input type="checkbox"/> | <u>6002972</u> | December 1999 | Palmer |
| <input type="checkbox"/> | <u>6006159</u> | December 1999 | Schmier et al. |
| <input type="checkbox"/> | <u>6007095</u> | December 1999 | Stanley |
| <input type="checkbox"/> | <u>6009355</u> | December 1999 | Obradovich et al. |
| <input type="checkbox"/> | <u>6009356</u> | December 1999 | Monroe |
| <input type="checkbox"/> | <u>6009363</u> | December 1999 | Beckert et al. |
| <input type="checkbox"/> | <u>6014447</u> | January 2000 | Kohnen et al. |
| <input type="checkbox"/> | <u>6028537</u> | February 2000 | Suman et al. |
| <input type="checkbox"/> | <u>6102487</u> | August 2000 | .O slashed.vreb.o slashed. |
| <input type="checkbox"/> | <u>6131060</u> | October 2000 | Obradovich et al. |
| <input type="checkbox"/> | <u>6141620</u> | October 2000 | Zyburt et al. |
| <input type="checkbox"/> | <u>6226389</u> | May 2001 | Lemelson et al. |
| <input type="checkbox"/> | <u>6233506</u> | May 2001 | Obradovich et al. |
| <input type="checkbox"/> | <u>6275231</u> | August 2001 | Obradovich |
| <input type="checkbox"/> | <u>6278396</u> | August 2001 | Tran |
| <input type="checkbox"/> | <u>6366240</u> | April 2002 | Timothy et al. |
| <input type="checkbox"/> | <u>6400996</u> | June 2002 | Hoffberg et al. |

340/426

340/426

OTHER PUBLICATIONS

Author Unknown, "Onstar Literature" obtained from www.onstar.com, date unknown, OnStar Corp., <http://www.onstar.com>.

Bruce Schneier, Applied Cryptography, 1996, Second Edition, Wiley, U.S.A.

Raymond B. Panko, Business Data Communications, 1997, Prentice Hall, U.S.A.

Simson Garfinkel, et al., Web Security & Commerce, 1997, O'Reilly & Associates, Inc., U.S.A.

Leslie L. Lesnick, et al., Creating Cool Intelligent Agents For The Net, 1997, IDG

Books Worldwide, Inc. U.S.A.

Nabil R. Adam, et al., Electronic Commerce Technical, Business, and Legal Issues, 1999, Prentice Hall PTR, U.S.A.

Alper Caglayan, et al., Agent Sourcebook A Complete Guide To Desktop, Internet, and Intranet Agents, 1997, Wiley, U.S.A.

ART-UNIT: 2632

PRIMARY-EXAMINER: Trieu; Van

ATTY-AGENT-FIRM: Joao, Esq.; Raymond A.

ABSTRACT:

A control apparatus and method, including a first control device, located at a vehicle or premises, capable of at least one of activating, de-activating, disabling, and re-enabling, one or more of a plurality of at least one of a respective system, component, device, equipment, equipment system, and/or appliance, of a respective vehicle or premises, with a first signal. The first signal is generated by and/or transmitted from the first control device in response to a second signal, generated by and/or transmitted from a second control device located remote from the vehicle or premises, and automatically received by the first control device. The second control device is responsive to a third signal, generated by and/or transmitted from a third control device located remote from the vehicle or premises and remote from the second control device, and automatically received by the second control device.

149 Claims, 20 Drawing figures

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)

[First Hit](#) [Fwd Refs](#)

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)



Generate Collection

Print

L1: Entry 2 of 12

File: USPT

Jan 7, 2003

US-PAT-NO: 6504472

DOCUMENT-IDENTIFIER: US 6504472 B2

TITLE: Apparatus and method for electronically delaying or stopping vehicles

DATE-ISSUED: January 7, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|----------------------------|-----------|-------|------------|---------|
| Machala; Michael Martin | La Habra | CA | 90631 | |
| Governali; Richard Anthony | Santa Ana | CA | 92706-1916 | |

APPL-NO: 10/072750 [\[PALM\]](#)

DATE FILED: February 5, 2002

PARENT-CASE:

The present application is a continuation-in-part of U.S. patent application Ser. No. 09/247,426 filed Feb. 10, 1999.

INT-CL-ISSUED: [07] [B60](#) [R](#) [25/10](#)

US-CL-ISSUED: 340/426; 340/425.5, 340/539, 307/10.2, 307/10.3, 116/33

US-CL-CURRENT: [340/426.1](#); [116/33](#), [307/10.2](#), [307/10.3](#), [340/425.5](#), [340/539.1](#)

FIELD-OF-CLASSIFICATION-SEARCH: 340/426, 340/425.5, 340/539, 340/825.37, 340/825.69, 307/10.2, 307/10.3, 116/33, 116/202

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

Clear

| | PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|--------------------------|-------------------------|---------------|------------------|---------|
| <input type="checkbox"/> | 3703714 | November 1972 | Andrews | 340/426 |
| <input type="checkbox"/> | 4067411 | January 1978 | Conley et al. | 180/114 |
| <input type="checkbox"/> | 4619231 | October 1986 | Stolar et al. | 123/333 |
| <input type="checkbox"/> | 4651157 | March 1987 | Gray et al. | 342/457 |
| <input type="checkbox"/> | 4660528 | April 1987 | Buck | 123/333 |
| <input type="checkbox"/> | 4665379 | May 1987 | Howell et al. | 340/426 |
| <input type="checkbox"/> | 4794368 | December 1988 | Grossheim et al. | 340/527 |

FOREIGN PATENT DOCUMENTS

| FOREIGN-PAT-NO | PUBN-DATE | COUNTRY | CLASS |
|----------------|-----------|---------|-------|
| WO 98 30421 | July 1998 | WO | |

ART-UNIT: 2632

PRIMARY-EXAMINER: Pham; Toan N

ATTY-AGENT-FIRM: Blakely Sokoloff Taylor & Zafman

ABSTRACT:

The invention relates to a mechanism for electronically disabling a motor vehicle. More specifically, the invention relates to a transmitter that is aimed by law enforcement personnel at a receiver attached to a motor vehicle driven by a suspect. The transmitter emits signals that cause the receiver to trigger a relay to open thereby terminating the power to the ignition coil (or to a microprocessor) and shutting off the engine of the suspect's motor vehicle.

7 Claims, 4 Drawing figures

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)

[First Hit](#) [Fwd Refs](#)

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)



Generate Collection

Print

L1: Entry 5 of 12

File: USPT

Jun 6, 2000

US-PAT-NO: 6072248

DOCUMENT-IDENTIFIER: US 6072248 A

TITLE: Method of and system for externally and remotely disabling stolen or unauthorized operated vehicles by pursuing police and the like

DATE-ISSUED: June 6, 2000

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------------|---------------|-------|----------|---------|
| Muise; Christopher Russel | Topsfield | MA | 01983 | |
| Thomas; Daniel Grant | North Andover | MA | 01845 | |

APPL-NO: 09/129734 [\[PALM\]](#)

DATE FILED: August 5, 1998

INT-CL-ISSUED: [07] [B60](#) [R](#) [25/04](#)

US-CL-ISSUED: 307/10.2; 180/287, 340/825.72

US-CL-CURRENT: [307/10.2](#); [180/287](#), [340/825.72](#)

FIELD-OF-CLASSIFICATION-SEARCH: 180/287, 180/114, 307/10.1, 307/10.2, 307/10.3-10.6, 340/426, 340/425.5, 340/825.06, 340/825.69, 340/825.72, 340/825.3-825.32, 340/825.34, 340/901, 340/902, 340/904, 342/44, 123/333, 123/198DB
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

Clear

| | PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|--------------------------|-------------------------|----------------|---------------|----------|
| <input type="checkbox"/> | 4878050 | October 1989 | Kelley | 340/426 |
| <input type="checkbox"/> | 5559491 | September 1996 | Stadler | 340/426 |
| <input type="checkbox"/> | 5861799 | January 1999 | Szwed | 307/10.2 |

ART-UNIT: 286

PRIMARY-EXAMINER: Elms; Richard T.

ATTY-AGENT-FIRM: Rines and Rines

ABSTRACT:

A method of and system for enabling pursuing police cruisers or the like to remotely and safely stop the engine of an appropriately equipped stolen or improperly operated vehicle, wherein the cruiser transmits a control signal to a receiver pre-provided in the vehicle, to initiate, preferably through modified engine control modules, a forced and over-riding multiple-stage reduction in fuel supplied to the engine, first to slow down the vehicle below idling speed, and then to stall the engine by total fuel shut off.

20 Claims, 9 Drawing figures

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)

[First Hit](#) [Fwd Refs](#)

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)



Generate Collection

Print

L1: Entry 6 of 12

File: USPT

Aug 17, 1999

US-PAT-NO: 5937823

DOCUMENT-IDENTIFIER: US 5937823 A

TITLE: Safely disabling a land vehicle using a selective call radio signal

DATE-ISSUED: August 17, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-------------------|---------------|-------|----------|---------|
| Reeder; Allan | Boynton Beach | FL | 33426 | |
| Wong; Poh-Tin | Boynton Beach | FL | 33436 | |
| Burke; William J. | Boca Raton | FL | 33428 | |

APPL-NO: 09/002628 [\[PALM\]](#)

DATE FILED: January 5, 1998

INT-CL-ISSUED: [06] [F02](#) [P 11/04](#), [B60](#) [R 25/10](#)

US-CL-ISSUED: 123/335; 340/425.5, 340/426, 701/112

US-CL-CURRENT: [123/335](#); [340/425.5](#), [340/426.12](#), [340/426.28](#), [701/112](#)

FIELD-OF-CLASSIFICATION-SEARCH: 123/333, 123/335, 340/425.5, 340/426, 340/428, 340/429, 701/110, 701/112

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

Clear

| | PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|--------------------------|-------------------------|---------------|-----------------|------------|
| <input type="checkbox"/> | 4345554 | August 1982 | Hildreth et al. | 123/335 X |
| <input type="checkbox"/> | 4619231 | October 1986 | Stolar et al. | 123/335 X |
| <input type="checkbox"/> | 4660528 | April 1987 | Buck | 123/335 X |
| <input type="checkbox"/> | 5432495 | July 1995 | Tompkins | 340/429 |
| <input type="checkbox"/> | 5463372 | October 1995 | Mawyer | 340/428 |
| <input type="checkbox"/> | 5479157 | December 1995 | Suman et al. | 340/825.31 |
| <input type="checkbox"/> | 5490200 | February 1996 | Snyder et al. | 379/57 |
| <input type="checkbox"/> | 5506562 | April 1996 | Wiesner | 340/425.5 |
| <input type="checkbox"/> | 5600299 | February 1997 | Tompkins | 340/429 |

| | | | | |
|--------------------------|----------------|----------------|---------------|---------|
| <input type="checkbox"/> | <u>5623245</u> | April 1997 | Gilmore | 340/426 |
| <input type="checkbox"/> | <u>5769051</u> | June 1998 | Bayron et al. | 123/335 |
| <input type="checkbox"/> | <u>5803043</u> | September 1998 | Bayron et al. | 123/335 |

ART-UNIT: 377

PRIMARY-EXAMINER: Argenbright; Tony M.

ABSTRACT:

A selective call module (102), installed in a land vehicle having an engine with an ignition system (118), has a selective call receiver (104), a microprocessor (106) and a non-volatile memory (108). The selective call module is connected to an engine control module (116) of the land vehicle. The microprocessor decodes received selective call signals and causes the selective call module to enter into a shutdown state upon decoding of a shutdown page. In the shutdown state, the selective call module measures the engine speed and immediately shuts down the engine by completely turning off the ignition system if the engine speed is less than a pre-set value. The selective call module gradually shuts down the engine by interrupting the ignition system for gradually increasing durations if the engine speed is greater than the pre-set value.

15 Claims, 3 Drawing figures

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)

[First Hit](#) [Fwd Refs](#)

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)



Generate Collection

Print

L1: Entry 7 of 12

File: USPT

Jul 20, 1999

US-PAT-NO: 5925940

DOCUMENT-IDENTIFIER: US 5925940 A

TITLE: Vehicle antitheft system controlling parking brake

DATE-ISSUED: July 20, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP | CODE | COUNTRY |
|-------------------------|---|-------|-----|------|---------|
| Donatelle; Gary L. | East Finley Township, Washington County | PA | | | |
| Prusakowski; Leonard B. | East Finley Township, Washington County | PA | | | |
| Bednar; Fred H. | Shaler Township, Allegheny County | PA | | | |

ASSIGNEE-INFORMATION:

| NAME | CITY | STATE | ZIP | CODE | COUNTRY | TYPE | CODE |
|---------------------|------------|-------|-----|------|---------|------|------|
| P.V. Security, Inc. | Claysville | PA | | | | 02 | |

APPL-NO: 08/829844 [PALM]

DATE FILED: April 1, 1997

PARENT-CASE:

CROSS-REFERENCE TO RELATED APPLICATION The benefit of provisional application No. 60/014,698 filed Apr. 1, 1996 is claimed. Provisional application No. 60/014,698 filed Apr. 1, 1996 is incorporated herein by reference.

INT-CL-ISSUED: [06] B60 R 25/00

US-CL-ISSUED: 307/10.2; 70/256, 180/287

US-CL-CURRENT: 307/10.2; 180/287, 70/256

FIELD-OF-CLASSIFICATION-SEARCH: 307/10.1-10.6, 303/20, 180/287, 123/179.2-179.4, 340/425.5, 340/426, 340/825.3-825.32, 340/825.69, 340/825.72, 70/256, 70/288
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

Clear

PAT-NO

ISSUE-DATE

PATENTEE-NAME

US-CL



4691801

September 1987

Mann et al.

180/287

| | | | | |
|--------------------------|-------------------------|---------------|-----------------|------------|
| <input type="checkbox"/> | 5086868 | February 1992 | Fontaine et al. | 180/287 |
| <input type="checkbox"/> | 5113427 | May 1992 | Ryoichi et al. | 307/10.1 |
| <input type="checkbox"/> | 5274370 | December 1993 | Morgan et al. | 340/825.31 |
| <input type="checkbox"/> | 5570756 | November 1996 | Hatcher et al. | 180/287 |

ART-UNIT: 286

PRIMARY-EXAMINER: Elms; Richard T.

ATTY-AGENT-FIRM: Sullivan, Jr.; Daniel A.

ABSTRACT:

A vehicle antitheft system utilizing the parking brake of a vehicle. If the primary parking brake release mechanism is operated for releasing the brake, the parking brake does not release, because it continues to be held by a secondary system, which is under security control. The system includes a remote control unit for setting the parking brake from locations away from the vehicle.

26 Claims, 59 Drawing figures

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)



Generate Collection

Print

L1: Entry 9 of 12

File: USPT

Jun 10, 1997

US-PAT-NO: 5638044

DOCUMENT-IDENTIFIER: US 5638044 A

TITLE: Apparatus and method for preventing car-jacking

DATE-ISSUED: June 10, 1997

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|----------------|--------|-------|----------|---------|
| Chua; Jaime S. | Azusta | CA | 91702 | |

APPL-NO: 08/614675 [PALM]

DATE FILED: March 13, 1996

INT-CL-ISSUED: [06] B60 R 25/10

US-CL-ISSUED: 340/426; 340/429, 340/430, 180/287, 307/10.2, 307/10.3

US-CL-CURRENT: 340/426.12; 180/287, 307/10.2, 307/10.3, 340/426.17, 340/429,
340/430

FIELD-OF-CLASSIFICATION-SEARCH: 340/426, 340/430, 340/539, 340/429, 340/425.5, 307/10.2, 307/10.3, 307/10.4, 180/287

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

Clear

| | PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|--------------------------|----------------|----------------|---------------|-----------|
| <input type="checkbox"/> | <u>4940964</u> | July 1990 | Dao | 340/438 |
| <input type="checkbox"/> | <u>5049867</u> | September 1991 | Stouffer | 340/426 |
| <input type="checkbox"/> | <u>5132551</u> | July 1992 | Carlo et al. | 307/10.3 |
| <input type="checkbox"/> | <u>5276728</u> | January 1994 | Pagliaroli | 340/426 |
| <input type="checkbox"/> | <u>5298878</u> | March 1994 | Smith | 340/430 |
| <input type="checkbox"/> | <u>5349329</u> | September 1994 | Smith | 340/539 |
| <input type="checkbox"/> | <u>5408211</u> | April 1995 | Hall | 340/425.5 |
| <input type="checkbox"/> | <u>5412370</u> | May 1995 | Berman et al. | 340/430 |
| <input type="checkbox"/> | <u>5513244</u> | April 1996 | Joao et al. | 340/539 |
| <input type="checkbox"/> | <u>5515419</u> | May 1996 | Sheffer | 340/539 |

ART-UNIT: 267

PRIMARY-EXAMINER: Mullen; Thomas

ASSISTANT-EXAMINER: Woods; Davetta C.

ABSTRACT:

An apparatus and method for preventing car-jacking including a receiver situated within a vehicle and adapted to allow the receipt of the activation signal and deactivation signal from an off site transmitting source similar to that employed in the art of pagers. Also included is a control mechanism electrically connected to an existing alarm, ignition coil of a vehicle, and the receiver. The control mechanism is adapted to activate the alarm and deactivate the ignition coil after a predetermined amount of time upon the receipt of the activation signal by the receiver. The control mechanism is also adapted to deactivate the alarm and activate the ignition coil upon the receipt of the deactivation signal.

1 Claims, 3 Drawing figures

[Previous Doc](#)

[Next Doc](#)

[Go to Doc#](#)